

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor: Rita BITZER et al.

Serial No.: 10/723,934

Filing Date: November 25, 2003

For: CORROSION PROTECTIVE LACQUER FOR BRAKING SURFACES OF BRAKE DISKS AND/OR BRAKE DRUMS, CORROSION PROTECTIVE COATING PRODUCED THEREFROM, AND A METHOD FOR REMOVING THE CORROSION PROTECTIVE COATING

Art Unit: 1755

Examiner: Anthony J. Green

Confirmation No.: 9401

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Date: March 24, 2008
Signature: Julie Forero

TRANSMITTAL OF APPEAL BRIEF PURSUANT TO 37 C.F.R. § 41.37

SIR:

Transmitted herewith for filing in the above-identified patent application is an Appeal Brief Pursuant to 37 C.F.R. § 41.37.

The Director is hereby authorized to charge payment of the 37 C.F.R. 41.20(b)(2) Appeal Brief fee of **\$510.00** to the deposit account of Kenyon & Kenyon LLP, deposit account number **11-0600**. Additionally, Applicants hereby request a **five-month extension of time** for filing the Appeal Brief. A Notice of Appeal was filed and received by the United States Patent and Trademark Office on August 22, 2007 for which a two-month response period to file an Appeal Brief, expiring on October 22, 2007, was set. The five-month extended period for response expires on **March 24, 2008**, March 22, 2008 being a Saturday. Please charge the 37 C.F.R. § 1.136(a) five-month extension fee of **\$2,230.00** and any other fee that may be required to Deposit Account No. **11-0600**.

Respectfully submitted,
KENYON & KENYON LLP

Dated: March 24, 2008

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BOARD OF PATENT APPEALS AND INTERFERENCES**

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In re Application of: : Examiner:
Rita BITZER et al. : Anthony J. Green
For: CORROSION PROTECTIVE LACQUER : Art Unit 1755
FOR BRAKING SURFACES OF BRAKE :
DISKS AND/OR BRAKE DRUMS, : Conf. No. 9401
CORROSION PROTECTIVE COATING :
PRODUCED THEREFROM, AND A :
METHOD FOR REMOVING THE :
CORROSION PROTECTIVE COATING :
Filed: November 25, 2003 :
Serial No.: 10/723,934 :
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APPEAL BRIEF PURSUANT TO 37 C.F.R. § 41.37

S I R:

In the above-identified patent application ("the present application"), Appellants filed a Notice of Appeal on August 22, 2007 from the Final Office Action issued by the United States Patent and Trademark Office on February 22, 2007. In the Final Office Action, claims 2 to 10, 12 to 17, 27, and 31 were finally rejected.

This Appeal Brief is submitted in support of the appeal of the final rejections of claims 2 to 10, 12 to 17, 27, and 31. It is respectfully submitted that the final rejections of claims 2 to 10, 12 to 17, 27, and 31 should be reversed for at least the following reasons.

I. Real Party in Interest

The real party in interest in the present appeal is Daimler AG of Stuttgart in the Federal Republic of Germany.

II. Related Appeals and Interferences

There are no other prior or pending appeals, interferences or judicial proceedings known by the undersigned, or believed by the undersigned to be known to Appellants or Daimler AG, "which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal."

III. Status of Claims

Claims 2 to 10, 12 to 17, 27, and 31 are pending.

Claims 1, 11, 18 to 26, 28 to 30, and 32 to 37 have been canceled.

The claims on appeal in the present appeal are claims 2 to 10, 12 to 17, 27, and 31.

Claims 2 to 10, 12 to 17, 27 and 31 stand finally rejected as allegedly failing to comply with the enablement requirement under 35 U.S.C. § 112, first paragraph.

Claims 2 to 10, 12 to 17, 27 and 31 stand finally rejected as allegedly indefinite under 35 U.S.C. § 112, second paragraph.

Claims 2 to 4, 10, 12 to 14, 17, 27, and 31 stand finally rejected under 35 U.S.C. § 102(b) as anticipated by German Published Patent Application No. 43 14 432 ("DE '432").

Claims 2 to 7, 12 to 17, 27, and 31 stand finally rejected under 35 U.S.C. § 102(b) as anticipated by European Published Patent Application No. 0 976 795 ("EP '795").

IV. Status of Amendments

There have been no amendments filed subsequent to the final rejection.

V.

Summary of Claimed Subject Matter

A. Independent Claim 10

Independent claim 10 relates to a corrosion protective brake lacquer (4) for producing a corrosion protective coating composition for a braking surface (2) of at least one of a brake disk (1) and a brake drum. Specification, p. 1, lines 2 to 6. According to claim 10, the lacquer (4) includes a protective substance (10) configured to at least one of chemically react with oxygen and bind with oxygen. Specification, p. 2, lines 5 to 19 and p. 4, lines 12 to 17. According to claim 10, the protective substance (10) has an average grain size that is substantially equal to at least one of a maximum roughness and an average size of score marks (8) of the braking surface (2) of the at least one of the brake disk (1) and the brake drum. Specification, p. 3, lines 9 to 13 and original claims 10 and 17.

B. Independent Claim 17

Independent claim 17 relates to a corrosion protective brake coating composition for a braking surface (2) of at least one of a brake disk (1) and a brake drum. Specification, p. 1, lines 2 to 6. According to claim 17, the coating composition includes a lacquer (4) including a protective substance (10) that at least one of chemically reacts with oxygen and binds with oxygen. Specification, p. 2, lines 5 to 19 and p. 4, lines 12 to 17. According to claim 17, the protective substance (10) has an average grain size substantially equal to at least one of a maximum roughness, an average pore diameter and an average size of score marks (8) of the braking surface (2) of the at least one of the brake disk (1) and the brake drum. Specification, p. 3, lines 9 to 13 and original claims 10 and 17.

C. Independent Claim 31

Independent claim 31 relates to a corrosion protective brake coating composition for a braking surface (2) of at least one of a brake disk (1) and a brake drum. Specification, p. 1, lines 2 to 6. According to claim 31, the coating composition includes a lacquer (4) including a protective substance (10) that at least one of chemically reacts with oxygen and binds with oxygen and that is configured to fill one of a pore (7) and a score (8) of average size on the braking surface (2) of the at least one of the brake disk (1) and the brake drum upon abrading the corrosion protective coating composition by a brake lining during braking. Specification, p. 2, lines 5 to 23 and p. 4, lines 12 to 17.

VI. Grounds of Rejection to be Reviewed on Appeal

The grounds of rejection for review are:

Whether claims 2 to 10, 12 to 17, 27 and 31 satisfy the enablement requirement of 35 U.S.C. § 112, first paragraph.

Whether claims 2 to 10, 12 to 17, 27 and 31 are sufficiently definite under 35 U.S.C. § 112, second paragraph.

Whether claims 2 to 4, 10, 12 to 14, 17, 27, and 31 are patentable under 35 U.S.C. § 102(b) over DE' 432.

Whether claims 2 to 7, 12 to 17, 27, and 31 are patentable under 35 U.S.C. § 102(b) over EP '795.

VII. Arguments

A. Rejection of Claims 2 to 10, 12 to 17, 27, and 31 Under 35 U.S.C. § 112, First Paragraph

Claims 2 to 10, 12 to 17, 27 and 31 stand finally rejected under 35 U.S.C. § 112, first paragraph as allegedly failing to comply with the enablement requirement. Appellants respectfully submit that claims 2 to 10, 12 to 17, 27 and 31 fully comply with the enablement requirement of

35 U.S.C. § 112 for at least the following reasons and respectfully submit that the present rejection should be reversed.

The Final Office Action alleges that the maximum roughness, average pore diameter, and average grain size of score marks on the brake surface would depend on the type of brake and its condition of use and, therefore, that it would require undue experimentation to determine what the average grain size of the claimed protective substance is supposed to be.

Appellants respectfully submit that one skilled in the art would not have to unduly experiment to determine the maximum roughness, average pore diameter, and average grain size of score marks on the surface of brake disks and brake drums, including those used in cars, trucks, and heavy machinery. It would not have required undue experimentation, for example, to photograph or otherwise image the surface of a brake disk or brake drum throughout its life as it is cycled through known usage conditions and then to circumscribe and calculate the areas of pores and scores in the surface so as to arrive at a maximum roughness, an average pore diameter, and an average grain size of a score mark using, for example, available computer programs.

The Final Office Action reflects an apparent misapprehension of the enablement requirement. The standard for determining whether the enablement requirement is satisfied was case nearly a century ago by the Supreme Court in Mineral Separation v. Hyde, 242 U.S. 261, 270 (1916), to wit: is the experimentation needed to practice the claimed subject matter undue or unreasonable. Thus, it is now well-settled that "[t]he test of enablement is whether one reasonably skilled in the art could make or use the invention from the disclosures in the patent coupled with information known in the art without undue experimentation." U.S. v. Electronics, Inc., 857 F.2d 778, 785, 8 U.S.P.Q.2d 1217, 1223

(Fed. Cir. 1988). As such, the test of enablement is not whether any experimentation is necessary but rather whether any experimentation that may be necessary is undue. In re Angstadt, 537 F.2d 498, 504, 190 U.S.P.Q. 214, 219 (C.C.P.A. 1976). Among the factors to be considered in determining whether any necessary experimentation may be undue are: (1) the breadth of the claims; (2) the nature of the invention; (3) the state of the prior art; (4) the level of one of ordinary skill; (5) the level of predictability in the art; (6) the amount of direction provided by the inventor(s); (7) the existence of working examples; and (8) the quantity of experimentation needed to make or use the claimed subject matter based on the content of the disclosure. In re Wands, 858 F.2d 731, 737, 8 U.S.P.Q.2d 1400, 1404 (Fed. Cir. 1988). However, it is **improper** to conclude that the enablement requirement is not satisfied based on an analysis of only one of the foregoing factors while ignoring one or more of the others. That is, a proper analysis must consider **all** the evidence related to **each** of these factors, and any conclusion of non-enablement must be based on the evidence **as a whole**. Id., 858 F.2d at 737, 740, 8 U.S.P.Q.2d at 1404, 1407.

The Final Office Action has failed completely in this regard. In view of all of the foregoing, reversal of this rejection is respectfully requested.

B. Rejection of Claims 2 to 10, 12 to 17, 27 and 31 Under 35 U.S.C. § 112, Second Paragraph

Claims 2 to 10, 12 to 17, 27 and 31 stand finally rejected under 35 U.S.C. § 112, second paragraph as allegedly indefinite. Appellants respectfully submit that claims 2 to 10, 12 to 17, 27 and 31 fully comply with the definiteness requirement of 35 U.S.C. § 112 for at least the following reasons and respectfully submit that the present rejection should be reversed.

The Final Office Action alleges that it is not clear the type of brake encompassed by the claims and, therefore, that it is unclear what is encompassed by the phrase "substantially equal to at least one of a maximum roughness, an average pore diameter and an average size of score marks." The definiteness requirement of 35 U.S.C. § 112, second paragraph is satisfied if the claims set out and circumscribe a particular subject matter with a **reasonable** degree of clarity and particularity. M.P.E.P. § 2173.02. According to M.P.E.P. § 2173.02, the Examiner's focus during examination of claims for compliance with the requirement for definiteness of 35 U.S.C. § 112, second paragraph is whether the claim meets the threshold requirements of clarity and precision, not whether more suitable language or modes of expression are available. There is absolutely nothing unclear about the phrase "substantially equal to at least one of a maximum roughness, an average pore diameter and an average size of score marks." The meaning of this language is clear irrespective of the type of brake used.

That the Final Office Action refers to the rejection raised under 35 U.S.C. § 112, first paragraph makes even more readily clear that the present rejection is based on an apparent misapprehension of the definiteness requirement under 35 U.S.C. § 112, second paragraph.

The Final Office Action's reference to Ex parte Slob, 157 U.S.P.Q. 172 (Bd. Pat. App. & Inter. 1967) is entirely misplaced. In this regard, it is noted that the presently claimed lacquer is not characterized simply by properties because one skilled in the art would have an understanding as to the composition of the claimed protective brake lacquer which, therefore, need not be specifically recited in the claims.

In view of all of the foregoing, reversal of this rejection is respectfully requested.

C. Rejection of Claim 2 to 4, 10, 12 to 14, 17, 27, and 31 Under 35 U.S.C. § 102(b)

Claims 2 to 4, 10, 12 to 14, 17, 27, and 31 stand finally rejected under 35 U.S.C. § 102(b) as anticipated by DE '432. Appellants respectfully submit that the present claims are patentable over DE '432 for at least the following reasons and respectfully submit that the present rejection should be reversed.

DE '432 purportedly relates to a corrosion protection agent for organically bonded friction linings. Nowhere does DE '432 disclose, or even suggest, a protective substance having an average grain size that is substantially equal to at least one of a maximum roughness and an average size of score marks of a braking surface of at least one of a brake disk and a brake drum, as required by claim 10, a protective substance having an average grain size substantially equal to at least one of a maximum roughness, an average pore diameter and an average size of score marks of the braking surface of the at least one of the brake disk and the brake drum, as required by claim 17, and a protective substance configured to fill one of a pore and a score of average size on the braking surface of the at least one of the brake disk and the brake drum upon abrading the corrosion protective coating composition by a brake lining during braking, as required by claim 31. DE '432 merely discloses the use of an inorganic zinc compound and does not disclose that the particle or grain size of the inorganic zinc compound is substantially equal to at least one of a maximum roughness, an average pore diameter, and/or an average size of score marks of a braking surface of a brake disk or brake drum to which it may be applied. The abstract of DE '432 is absolutely silent with respect to the grain size of the inorganic zinc compound.

The Final Office Action seems to consider it to be Appellants' burden to establish that DE '432 does not disclose

the grain size recited in claims 10, 17, and 31. Appellants respectfully disagree. In order to establish a prima facie case of anticipation, the **Examiner** must provide a reference that discloses a protective substance within the recited size range. Providing a reference that discloses an inorganic zinc compound without any information as to the grain size of the inorganic compound does not meet the Examiner's burden - as inorganic zinc compounds of varying sizes outside the claimed range clearly exist. Further, the silence of DE '432 regarding the grain size of the inorganic zinc compound is not properly interpreted as disclosing every possible grain size. Indeed, the reading of DE '432 as disclosing every possible grain size yields impossible combinations of grain size and coating thickness, for example, combinations in which the layer thickness is smaller than the grain size.

Nor does the Final Office Action provide any support for its position that the grain size disclosed by DE '432 is inherently one that is substantially equal to at least one of a maximum roughness, average pore diameter, and an average size of score marks other than the fact that the compositions are used for the same purpose. It is inappropriate to assume that just because both compositions are used to coat brakes that they necessarily have the same grain size. Therefore, it is respectfully submitted that DE '432 does not anticipate claims 10, 17, and 31.

Furthermore, the present rejection relies on the doctrine of inherency. However, merely because a certain result or characteristic may occur or be present in the prior art is insufficient to establish the inherency of that result or characteristic. In re Rijckaert, 9 F.3d 1531, 1534, 28 U.S.P.Q.2d 1955, 1957 (Fed. Cir. 1993). That is, "[i]nherency . . . may not be established by probabilities or possibilities." In re Robertson, 169 F.3d 734, 745, 49 U.S.P.Q.2d 1949, 1950 to 1951 (Fed. Cir. 1999). In other words, "[o]n relying upon the theory of inherency, the

examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." Ex parte Levy, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original). The Final Office Action has failed in this regard.

As for claims 2 to 4, and 27, which ultimately depend from claim 10 and therefore include all of the features of claim 10, and claims 12 to 14, which depend from claim 17 and therefore include all of the features of claim 17, Appellants submit that these claims are patentable over DE '432 for at least the same reasons provided above.

In view of all of the foregoing, reversal of this rejection is respectfully requested.

D. Rejection of Claim 2 to 7, 12 to 17, 27, and 31 Under 35 U.S.C. § 102(b)

Claims 2 to 7, 12 to 17, 27, and 31 stand finally rejected under 35 U.S.C. § 102(b) as anticipated EP '795. Appellants respectfully submit that the present claims are patentable over EP '795 for at least the following reasons and respectfully submit that the present rejection should be reversed.

EP '795 purportedly relates to an antifriction coating for metals and a process for its manufacture. Appellants respectfully submit that EP '795 does not disclose, or even suggest, a protective substance having an average grain size that is substantially equal to at least one of a maximum roughness and an average size of score marks of a braking surface of at least one of a brake disk and a brake drum, as required by claim 10, a protective substance having an average grain size substantially equal to at least one of a maximum roughness, an average pore diameter and an average size of score marks of the braking surface of the at least one

of the brake disk and the brake drum, as required by claim 17, and a protective substance configured to fill one of a pore and a score of average size on the braking surface of the at least one of the brake disk and the brake drum upon abrading the corrosion protective coating composition by a brake lining during braking, as required by claim 31. EP '795 does not disclose exactly what is claimed and does not enable one skilled in the art to make or use the subject matter as claimed herein.

The Final Office Action does not provide any support for its position that the grain size disclosed by EP '795 is inherently one that is substantially equal to at least one of a maximum roughness, average pore diameter, and an average size of score marks other than the fact that the compositions are both used to coat brakes. This rejection is entirely deficient with respect to the reliance on the doctrine of inherency for at least the reasons set forth above. Appellants respectfully submit that it is inappropriate to assume that just because both coatings are used to coat brakes that they necessarily have the same grain size.

As for claims 2 to 7, and 27, which ultimately depend from claim 10 and therefore include all of the features of claim 10, and claims 12 to 17, which depend from claim 17 and therefore include all of the features of claim 17, Appellants submit that these claims are patentable over EP '795 for at least the same reasons provided above.

In view of all of the foregoing, reversal of this rejection is respectfully requested.

VIII. Claims Appendix

An appendix containing a copy of the claims involved in the present appeal is attached hereto.

IX. Evidence Appendix

No evidence has been submitted pursuant to 37 C.F.R. §§ 1.130, 1.131, or 1.132. No other evidence has been entered by the Examiner or relied upon by Appellants in the appeal. An "Evidence Appendix" is nevertheless attached hereto.

X. Related Proceedings Appendix

As indicated above in Section II, "[t]here are no other prior or pending appeals, interferences or judicial proceedings known by the undersigned, or believed by the undersigned to be known to Appellants or Daimler AG, 'which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.'" As such, there are no "decisions rendered by a court or the Board in any proceeding identified pursuant to [37 C.F.R. § 41.37(c)(1)(ii)]" to be submitted. A "Related Proceedings Appendix" is nevertheless attached hereto.

XI. Conclusion

In view of the above, it is respectfully requested that the rejections of claims 2 to 10, 12 to 17, 27, and 31 be reversed and that these claims be allowed as presented.

Respectfully submitted,

Dated: March 24, 2008 By: /Clifford A. Ulrich/
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Claims Appendix

2. The corrosion protective brake lacquer according to claim 10, wherein the protective substance includes at least one of a non-alkaline metal, a non-earth alkaline metal, an oxidizable metal compound of non-alkaline metals, an oxidizable metal compound of non-earth alkaline metals, phosphate and phosphorous.

3. The corrosion protective brake lacquer according to claim 10, wherein the protective substance includes at least one of zinc, an oxidizable iron oxide and elemental aluminum.

4. The corrosion protective brake lacquer according to claim 10, wherein the protective substance is in a proportion of at least 30% by volume.

5. The corrosion protective brake lacquer according to claim 10, wherein the protective substance is in a proportion of at least 50% by volume.

6. The corrosion protective brake lacquer according to claim 10, wherein the protective substance is in a proportion of at least 70% by volume.

7. The corrosion protective brake lacquer according to claim 10, wherein a starting material of the corrosion protective lacquer includes a clear lacquer.

8. The corrosion protective brake lacquer according to claim 10, wherein a starting material of the corrosion protective lacquer includes an organic solvent.

9. The corrosion protective brake lacquer according to claim 8, wherein the corrosion protective lacquer includes a water-based lacquer.

10. A corrosion protective brake lacquer for producing a corrosion protective coating composition for a braking surface of at least one of a brake disk and a brake drum, comprising:

a protective substance configured to at least one of chemically react with oxygen and bind with oxygen;

wherein the protective substance has an average grain size that is substantially equal to at least one of a maximum roughness and an average size of score marks of the braking surface of the at least one of the brake disk and the brake drum.

12. The corrosion protective brake coating composition according to claim 17, wherein the protective substance includes at least one of a non-alkaline metal, a non-earth alkaline metal, an oxidizable metal compound, phosphate and phosphorous.

13. The corrosion protective brake coating composition according to claim 17, wherein the protective substance includes at least one of zinc, oxidizable iron oxide-and elemental aluminum.

14. The corrosion protective brake coating composition according to claim 17, wherein the protective substance in the corrosion protective coating composition has a proportion of at least 30% by volume.

15. The corrosion protective brake coating composition according to claim 17, wherein the protective substance in the corrosion protective coating composition has a proportion of at least 50% by volume.

16. The corrosion protective brake coating composition according to claim 17, wherein the protective substance in the corrosion protective coating composition has a proportion of at least 70% by volume.

17. A corrosion protective brake coating composition for a braking surface of at least one of a brake disk and a brake drum, comprising:

a lacquer including a protective substance that at least one of chemically reacts with oxygen and binds with oxygen;

wherein the protective substance has an average grain size substantially equal to at least one of a maximum roughness, an average pore diameter and an average size of score marks of the braking surface of the at least one of the brake disk and the brake drum.

27. The corrosion protective brake lacquer according to claim 10, wherein a starting material of the corrosion protective lacquer includes a tinted lacquer.

31. A corrosion protective brake coating composition for a braking surface of at least one of a brake disk and a brake drum, comprising:

a lacquer including a protective substance that at least one of chemically reacts with oxygen and binds with oxygen and that is configured to fill one of a pore and a score of average size on the braking surface of the at least one of the brake disk and the brake drum upon abrading the corrosion protective coating composition by a brake lining during braking.

Evidence Appendix

No evidence has been submitted pursuant to 37 C.F.R. §§ 1.130, 1.131, or 1.132. No other evidence has been entered by the Examiner or relied upon by Appellants in the appeal.

Related Proceedings Appendix

As indicated above in Section II, "[t]here are no other prior or pending appeals, interferences or judicial proceedings known by the undersigned, or believed by the undersigned to be known to Appellants or the assignee, DaimlerChrysler AG, 'which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.'"¹ As such, there are no "decisions rendered by a court or the Board in any proceeding identified pursuant to [37 C.F.R. § 41.37(c)(1)(ii)]" to be submitted.